INTEGRATED SOURCE CODE DEBUGGING APPARATUS METHOD AND SYSTEM

ABSTRACT OF THE DISCLOSURE

An apparatus for debugging source code includes a source code debugger configured to display state information and one or more initialization routines corresponding to a particular software function. The initialization routines initialize a target environment to a particular system state and facilitate replication, isolation, and analysis of software coding errors. In one embodiment, a function selector facilitates selection of the target function by a user and generates an execution request. In turn, a task dispatcher dispatches the initialization routines and associated software function in response to the execution request. The present invention greatly simplifies interactive debugging of source code. Rather than generating complex, error-prone, and often timing-dependent manipulation sequences of registers, memory, peripheral devices, and the like, a user simply selects the initialization routines that generate the particular states and conditions necessary to replicate and analyze a particular software error.